



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,890	11/26/2003	Mohamad Essabar	1899.008US1	1168
21186 7590 05/07/2008 SCHWEGMAN, LUNDBERG & WOESSNER, P.A. P.O. BOX 2938 MINNEAPOLIS, MN 55402				
EXAMINER				
DAO, MINH D				
ART UNIT		PAPER NUMBER		
2618				
MAIL DATE		DELIVERY MODE		
05/07/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/723,890

Applicant(s)

ESSABAR ET AL.

Examiner

MINH D. DAO

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-18 is/are allowed.
- 6) ☒ Claim(s) 19-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/55/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 07/30/07 with respect to the rejection(s) of claim(s) 19,21,22,24 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Bohm et al. (US 5,697,069).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 19-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Everett et al. (US 5,317,330) in view of Bohm et al. (US 5,697,069).

Regarding claim 19, Everett teaches transforming an antenna element into a high-impedance parallel resonant circuit in a receive mode; and transforming the antenna element into a low-impedance series resonant circuit in a transmit mode (see figs. 3 and 4; col. 1, line 5 to col. 3, line 65). In this case, the creations of parallel and series

resonant circuits that produces high and low impedance, wherein the transmitted and received signals flowing through, read on the "transforming" as recited in the claim.

However, Everett does not mention determining and switching between transmit and receive modes. Bohm, in an analogous art, teaches a transmission/reception switch is switched via the resonant loops in the transmission and reception branches of the switch circuit. The switch includes a reception branch with a parallel resonant loop and a transmission branch with a series or parallel resonant loop. The resonant loops are each switched by means of a respective bipolar transistor. The impedance of the series or parallel resonant loop may be determined and provided such that almost all power is fed to the antenna (see abstract; figs. 1 and 2; col. 1, line 34 to col. 3, line 67). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the above teaching of Bohm to Everett in order for the combined system to maximize the amount of power to the antenna therefore to improve performance of the system as taught by Bohm.

Regarding claim 20, Everett and Bohm, once combined, teach transforming the antenna element into a high-impedance parallel resonant circuit in the receive mode includes grounding a first terminal and a second terminal of the antenna element (see Bohm, abstract; figs. 1 and 2; col. 1, line 34 to col. 3, line 67).

Regarding claim 21, the combination of Everett and Bohm teaches transforming the antenna element into a high-impedance parallel resonant circuit in the receive mode connecting the inductive coil in parallel across the tuning capacitor and in parallel across an equivalent capacitance for both the DC blocking capacitor and an integrated circuit (IC) capacitance (see Everett, figs. 3 and 4; col. 1, line 5 to col. 3, line 65).

Regarding claim 22, the combination of Everett and Bohm teaches transforming the antenna element into a low-impedance series resonant circuit in the transmit mode includes connecting the inductive coil in series with the tuning capacitor and the DC blocking capacitor (see Everett, figs. 3 and 4; col. 1, line 5 to col. 3, line 65).

Regarding claim 23, Everett and Bohm, once combined, teach transforming the antenna element into a low-impedance series resonant circuit in the transmit mode includes connecting the DC blocking capacitor between the node of the antenna element and ground in the transmit mode (see Bohm, abstract; figs. 1 and 2; col. 1, line 34 to col. 3, line 67).

Regarding claim 24, the combination of Everett and Bohm obviously teaches the mode of operation for the communication system defaults to the receive mode as this is a well known fact in the art in order to ensure receiving information at all time.

Regarding claim 25, the combination of Everett and Bohm teaches the high-impedance parallel resonant circuit has a parallel resonant frequency; the low-impedance series

resonant circuit has a series resonant frequency; and the parallel resonant frequency is approximately equal to the series resonant frequency (see Everett, col. 2, lines 5-28). The term "approximately equal" indicates that the parallel and series resonant frequencies are different. Therefore, the passage in col. 2, lines 5-28 of Everett reads on this limitation of the claim.

Regarding claim 26, Everett and Bohm, once combined, teach that the antenna element includes an inductor component and a tuning capacitor component; transforming the antenna element into the high-impedance parallel resonant circuit in the receive mode includes connecting the inductor component and the tuning capacitor component in parallel; and transforming the antenna element into the low-impedance series resonant circuit in the transmit mode includes connecting the inductor component and the tuning capacitor component in series (see Bohm, abstract; figs. 1 and 2; col. 1, line 34 to col. 3, line 67).

Allowable Subject Matter

4. Claims 1-18 are allowed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH D. DAO whose telephone number is (571)272-7851. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MATTHEW ANDERSON can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MINH DAO
/MINH D DAO/
Examiner, Art Unit 2618

